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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,733

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Ernst Reder

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HUDAK, SHUNK & FARINE, CO., L.P.A.  
2020 FRONT STREET  
SUITE 307  
CUYAHOGA FALLS, OH 44221

EXAMINER

KURTZ, BENJAMIN M

ART UNIT

PAPER NUMBER

1797

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,733	<b>Applicant(s)</b> REDER ET AL.	
	<b>Examiner</b> BENJAMIN KURTZ	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 20, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-19, 21 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/10</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

Claims 1-10 and 15-28 are pending, claims 11-14 and 29 are cancelled.

### ***Claim Rejections - 35 USC § 102 and 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1-8, 16-18 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy et al. US 5 830 348 in view of Verlinden US 3 958 904 and Wagner US 1 371 530.**

Claim 1, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section with a second end that merges into an essentially

horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy teaches the curved edge section has a first end but does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and strip shaped lateral wall having a length measured parallel to the

peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall adjacent thereto, wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure taught by Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of

providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claims 2-8 and 16-18, Verlinden further teaches in vertical cross section the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the curved edge section tangentially (fig. 1); the common wall section forms a lower wall section of the lateral wall that includes the lower end (fig. 1); the curved edge section extend up to the inner end of the strip shaped lateral wall (fig. 1); the curved edge section has a mean edge of curvature  $R$ , which satisfies  $R$  greater than  $5 \times S$ ,  $S$  being the thickness of the peripheral wall of the cartridge container (fig. 1); the curved edge section spans an angle of 90 degrees (fig. 1); the lateral wall upper wall section extends upward from the common wall section at least up to a height of the lid bottom (fig. 1); and the upper wall section of the lateral wall and the curved edge section border on their outer side forming a ring space with a wedge shaped cross section (fig. 1).

Claim 25, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip

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shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section with a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy teaches the curved edge section has a first end but does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the

common wall section lower end and cartridge container peripheral wall adjacent thereto wherein in the vertical cross-section, the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the first end of the curved edge section tangentially, where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall adjacent thereto, wherein the lateral wall is connected with the first end of the curved edge section, wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure taught by



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Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claim 26, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall and the lid

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having a curved edge section immediately merges into an essentially horizontal lid bottom middle section at a second end (fig. 1, col. 4, lines 8-17). Vannoy does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved section, tapering inwards, in a forming region or an essentially vertical section at one end.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto and the curved edge section consists of a single curved portion having a radius of curvature  $R$ , where glue connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has an essentially vertical section at one end in an area of the common wall section (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall adjacent thereto, and wherein the curved edge section consists of a single curved portion having a radius of curvature  $R$ , wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section immediately merges into an essentially horizontal lid bottom middle section at a second end (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure as taught by Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore,

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because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claims 27 and 28, Vannoy does not teach the curved edge section has an essentially vertical section at one end in an area of the common wall section. Verlinden teaches the curved edge section has an essentially vertical section at one end in an area of the common wall section and would have been obvious for the same reasons detailed in the rejection of claims 1 and 25.

**2. Claims 9, 10, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 and Verlinden '904 and Wagner '530 and further in view of Stifano US 4 109 820.**

Claims 9 and 19, Vannoy and Verlinden teach the filter cartridge of claim 1 or 8 but do not teach a back up ring arranged on the lid.

Stifano teaches a cartridge having a lid further comprising a back up ring arranged on the lid (col. 3, lines 32-34), the back up ring has an inner wall comprising a ring opening (25) an outer lateral wall in contact with the lid lateral wall and a plurality of radial reinforcing ribs (14) extending between the back up ring inner wall and the back up ring outer lateral wall (fig. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the back up ring of Stifano because the ring redirects the pressure within the container to the walls and makes a stronger seal (col. 3, lines 46-56).

Claim 10, Stifano further teaches at least a bottom contour of the back up ring is connected to the back up ring inner wall and the back up ring outer lateral wall and is built such that the bottom contour is complementary to an outer contour of the lid (fig. 6).

Claim 21, Vannoy further teaches the lid includes a connecting tube at its center that is connected to the essentially horizontal lid bottom middle section and Stifano also teaches the lid including a connecting tube (25) accessible through the ring opening of the back up ring (Vannoy (fig. 1), Stifano (fig. 6)).

**3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 in view of Verlinden '904, Wagner '530 and Gizowski et al. US 2001/0000894 A1.**

Vannoy further teaches a weld where the weld is a laser weld but does not teach the material of the cartridge is transparent to laser light. Gizowski teaches the material of the cartridge container is transparent to laser light and at least the material of the lateral wall of the lid is absorptive to laser light (paragraph 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the materials as taught by Gizowski because it enables increase manufacturing rates and provides a higher quality fluid seal (paragraph 7).

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 25 and 26 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

5. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23, 24 and 20 are allowed.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN KURTZ whose telephone number is

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(571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz  
Examiner  
Art Unit 1797

/Benjamin Kurtz/  
Examiner, Art Unit 1797